

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
LightSquared Subsidiary LLC Request for)	SAT-MOD-20101118-00239
Modification of Its Authority for an Ancillary)	
Terrestrial Component)	

**CONSOLIDATED OPPOSITION TO APPLICATIONS FOR REVIEW AND
PETITION FOR RECONSIDERATION**

New America Foundation, Media Access Project, Free Press and Public Knowledge (collectively, “the Public Interest Organizations”) hereby file these comments in opposition to seven Applications for Review,¹ and one Petition for Reconsideration,² of the International Bureau’s *Order and Authorization* (“O&A”)³ approving the application by LightSquared Subsidiary LLC (“LightSquared”) to modify its current authorization to offer an integrated MSS/terrestrial service.⁴ As the Public Interest Organizations stated in comments supporting the requested ATC modification, “LightSquared[’s] application serves as an important step in the process of facilitating the deployment of a new, wholesale-only mobile broadband service, and

1 See U.S. GPS Industry Council, *et al.*, Application for Review, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“U.S. GPS Industry Council”); General Aviation Manufacturers Association, Application for Review, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“GAMA”); American Congress on Surveying and Mapping, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“ACSM”); Lockheed Martin Corporation Application for Review, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“Lockheed Martin”); Aviation Spectrum Resources, Inc., Application for Review, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“ASRI”); Application for Review of Tom Stansell, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“Stansell”); Application for Review of the Aircraft Owners and Pilots Association, SAT-MOD-20101118-00239 (Feb. 25, 2011) (“AOPA”).

2 Deere and Company Petition for Reconsideration, SAT-MOD-20101118-00239 (Feb. 25, 2011).

3 *In the Matter of LightSquared LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Order and Authorization, SAT-MOD-20101118-00239 (rel. Jan. 26, 2011) (“O&A”).

4 See Application of LightSquared for Modification of its MSS ATC Authority, SAT-MOD-20101118-00239, at 1 (filed Nov. 18, 2010) (“LightSquared ATC Modification Request”).

therefore can deliver significant public interest benefits by increasing competition in a largely broken wireless market, consistent with this Commission's goal of stimulating innovation, investment, and competition in the wireless industry.”⁵

The Public Interest Organizations applaud the International Bureau for moving expeditiously to facilitate more intensive and spectrum efficient use of the L Band for LTE mobile broadband services, while also addressing proactively the potential impact of out of band emissions on adjacent GPS operations. The Bureau began addressing such concerns by establishing an industry working group process with deadlines and with a requirement that interference concerns must be addressed to the Commission's satisfaction before LightSquared is given final approval to commence offering commercial services in the band. The opposition of incumbent GPS industry interests is entirely predictable. Yet, because the potential consumer welfare benefits of LightSquared's proposed wholesale access network are so compelling, we urge the Commission to deny the Applications for Review (and Petition for Reconsideration) while continuing to work to resolve equitably any legitimate GPS interference issues, particularly those that could endanger public health and safety. By allowing network construction to continue while establishing a process to address interference issues, the Bureau properly balanced LightSquared's concerns about meeting its buildout obligations and maintaining the viability of the project with ensuring that GPS services would remain protected.

5 Comments of Free Press, Media Access Project, New America Foundation and Public Knowledge, *In the Matter of LightSquared LLC Request for Modification of its Authority for an Ancillary Terrestrial Component*, Order and Authorization, SAT-MOD-20101118-00239, at 1 (Dec. 9, 2010).

I. THE INTERNATIONAL BUREAU DID NOT EXCEED ITS AUTHORITY

A. The Bureau's Conditional Waiver Applied the ATC Rule and Did Not Amend it

The GPS filers assert that the integrated service waiver granted in the International Bureau's *O&A* "has the effect of fundamentally changing the Commission's ATC rules, an action beyond the scope of the Bureau's delegated authority that conflicts with the law and with Commission regulations, case precedent, and established policy."⁶ The U.S. GPS Council, *et al.*, contend that the Bureau "has eviscerated the integrated service rule in the *Waiver Order* when it should have engaged in a rulemaking proceeding."⁷ However, far from "eviscerating" the public interest purposes of the integrated service rule, the Bureau's *O&A* applies the rule and then grants a waiver by imposing a long list of conditions on LightSquared to ensure that its business plan and service offerings both extend the coverage and improve the quality of a fully integrated MSS/ATC service.⁸ As the Bureau states:

LightSquared's current service offerings and demonstrated commitment to providing MSS provide a measure of assurance that a waiver of the integrated service rule will not obviate the overall purpose of the gating criteria to "ensure that the added terrestrial component remains ancillary to the principal MSS offering." We find unpersuasive comments that argue otherwise.⁹

The GPS filers' various arguments that the Bureau's action has eliminated or at least undermined the Commission's integrated service rule all hinge on the flawed premise that the ATC component cannot remain ancillary and complementary to the principal MSS offering if

6 See U.S. GPS Industry Council, *et al.* Application for Review at 1-2; see also GAMA Application for Review at 4-5; Deere & Company Petition for Reconsideration at 12-13; ACSM Application for Review at 2; ASRI Application for Review at 2-3; Lockheed Martin Application for Review at 1.

7 U.S. GPS Industry Council, *et al.* Application for Review at 2.

8 See *O&A* ¶ 36.

9 *Id.* ¶ 30.

there is any offer of ATC-only devices or subscriptions as part of a wholly integrated MSS/ATC service. The Bureau found otherwise, noting that despite the fact that LightSquared's wholesale customers could potentially offer ATC-only services, "the totality of the facts and circumstances considered as a whole . . . collectively serve to promote the public interest and the purpose of the integrated service rule and, therefore, warrant our grant of a conditional waiver of the integrated service rule."¹⁰

Thus, the Bureau explicitly applied the waiver criteria relied upon by the GPS filers. The *O&A* cites and follows the criteria evinced by the D.C. Circuit, which has recognized that the Commission may grant a waiver of its rules in response to a particular application only if (1) the relief requested would not undermine the policy objectives of the rule, and (2) would otherwise best serve the public interest.¹¹ The LightSquared ATC Modification Request provided a detailed factual showing of the technical, economic, marketing and other elements of its business plan that would promote both the purposes of the MSS/ATC integrated service rule and the general public interest in improved rural broadband coverage, wireless competition, and innovation. Explicitly applying the D.C. Circuit waiver standard,¹² the *O&A* identifies and explicates a series of commitments in the LightSquared ATC Modification Request and business plan that are consistent with advancing the policy purposes of the Commission's integrated service rule, including:

¹⁰ *Id.* ¶ 29.

¹¹ See GAMA Application for Review at 5 (citing *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969); *Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1166 (D.C. Cir. 1990)).

¹² *O&A* ¶ 26 (citing 47 C.F.R. § 1.3 and *WAIT Radio v. FCC*, 418 F.2d at 1159).

- “*Provision of Ubiquitous, Nationwide MSS,*” including the fact that LightSquared has “invested \$600 million to construct and launch its next-generation, broadband capable satellite, and plans to significantly grow its satellite user base.”¹³
- “*Rationalization of MSS L-band for Improved MSS and MSS/ATC Use,*” including the fact that LightSquared has undertaken the substantial expense of rationalizing narrow, interleaved bands of L-band spectrum into contiguous blocks, including a commitment to “pay Inmarsat an additional \$337.5 million to allow for the transition of legacy equipment.”¹⁴
- “*Investment in Dual-Mode Service and Device Offerings,*” including a series of investments, already at least \$50 million, aimed at “developing an integrated MSS/ATC marketplace, including dual-mode devices.”¹⁵
- “*Unique Terrestrial Buildout Obligations in the MSS L-band,*” including commitments to meet “significant terrestrial buildout milestones for its integrated satellite/terrestrial 4G network using the MSS L-band” that “must provide coverage to at least 100 million people by the end of 2012, at least 145 million people by the end of 2013, and at least 260 million people by the end of 2015,”¹⁶ and to “actively market to rural areas that do not currently have access to broadband services.”

This factual showing by itself is sufficient to establish that with the waiver, “[d]eployment of LightSquared’s network will expand the capabilities of traditional MSS offerings and make terrestrial mobile wireless broadband service available to a wider variety of users,”¹⁷ thereby advancing (and not undermining) the public interest purposes of the Commission’s integrated service rule. Yet, contrary to the GPS filers’ claims, the *O&A* does not “eviscerate” the purposes of the MSS/ATC integrated service rule. The *O&A* makes LightSquared’s commitments to enhance the *integrated* service offering explicit conditions of the license modification.¹⁸

13 *Id.* ¶ 30.

14 *Id.* ¶ 31.

15 *Id.* ¶33.

16 *Id.* ¶34.

17 *Id.* ¶34.

18 *Id.* ¶35 (“Finally, LightSquared offers numerous commitments, many of which we impose as waiver conditions, below, to ensure consistency with the purposes of the gating criteria and the integrated service rule.”).

Therefore, the conditions imposed on LightSquared under the waiver order¹⁹ are clearly designed to promote and ensure the purposes of the integrated service rule. They include conditions that require LightSquared to actively market and make available nationwide a commercially competitive MSS offering; dedicate at least 6 MHz of L-Band spectrum exclusively to satellite services nationwide; continue its substantial investments in dual-mode devices, ensuring that the company “has economic incentives to promote the use of MSS/ATC by making the cost of these devices competitive with similar terrestrial-only devices”;²⁰ and to meet reporting requirements “that will permit the Commission to monitor key indicators of whether outcomes consistent with the purpose of the gating criteria and the public interest actually materialize.”²¹ Moreover, the O&A provides that if LightSquared fails to report or comply, “the Bureau can take further action to modify LightSquared’s ATC authority, as needed.”²²

The Bureau also properly considered the broader public interest benefits of LightSquared’s proposed wholesale LTE network. Successful deployment by LightSquared of the proposed network will not cure all the ills of an increasingly consolidated and insufficiently competitive mobile broadband market, but it will provide an opportunity for one more major competitor in a mobile broadband marketplace marked increasingly by a duopoly of vertically integrated service providers using exclusive arrangements for devices and control over essential service inputs to squeeze out competitors.²³ The most likely outcome of large-scale ATC deployment by

19 *Id.* ¶36.

20 *Id.* ¶35.

21 *Id.*

22 *Id.*

23 *See, e.g.*, Comments of Free Press and Media Access Project, WT Docket No. 10-133, at 13-14 (filed July 30, 2010) (quoting an analyst comment on the wireless market as “not quite a duopoly yet” but “with the vast majority of growth going to two companies, it’s close”).

LightSquared is an increase in competition, which will then lead to further investment – not just by LightSquared, but also by existing carriers that will face greater competition. Greater competition and investment will drive deployment of higher-quality, lower-priced mobile broadband services, increasing the access to such services for a greater number of citizens, and opening the door to greater innovation at the edges of the network.

B. The Bureau’s Waiver Approval Was Not Subject to a 30-Day Comment Period

Several GPS filers assert that LightSquared’s application sought a major modification under the Commission’s rules, and so claim that the Bureau committed a procedural error by adopting a pleading cycle shorter than 30 days.²⁴ The Bureau correctly addressed and dismissed this argument in the *O&A*, and the GPS filers offer no new arguments or more persuasive rationales for their claim.

As the Public Interest Organizations explained in their initial comments in this proceeding, the GPS filers’ argument is circular. It is premised on the success of their substantive claim that the Bureau’s waiver amounts to a substantive change to the ATC integrated service rules. Section 25.117(f) of the Commission’s rules expressly provides that “[a]n application for ... an ancillary terrestrial component ... will be treated as a request for minor modification.”²⁵ Since the Bureau determined that the waiver is an ATC modification, the Bureau retained the discretion to adopt a pleading cycle of less than 30 days, so long as it provided sufficient notice and opportunity to comment on the application. As the *O&A* correctly notes

24 U.S. GPS Industry Council, *et al.* Application for Review at 15-17; GAMA Application for Review at 4-5.

25 47 C.F.R. § 25.117(f). *See Flexibility for Delivery of Communications by Mobile Satellite Service Providers, Report and Order and Notice of Proposed Rulemaking*, 18 FCC Rcd 1962, ¶ 240 (2003) (“2003 ATC Order”).

with respect to its waiver analysis and decision, “there is no set pleading cycle for waiver requests specified in the Communications Act or in the Commission’s rules.”

Moreover, even assuming, *arguendo*, that the modification is “major,” Section 309(b) of the Act states that major modification applications shall not “*be granted* by the Commission earlier than 30 days following issuance of public notice by the Commission.”²⁶ Again, the Bureau correctly concluded that since it took no action on LightSquared’s application until substantially more than 30 days after the pleading cycle was initially noticed, the period available for parties to comment and reply complied with the Section 309(b) requirement that applies to a rulemaking or other major modification.²⁷

II. THE BUREAU HAS GONE ABOVE AND BEYOND THE ATC RULES TO CREATE A PROCESS TO IDENTIFY AND ADDRESS GPS INTERFERENCE CONCERNS

The GPS filers argue that the Bureau erred by granting the waiver without considering stronger interference protections for GPS from out of band emissions (“OOBE”).²⁸ Certainly, potential disruption of GPS is a serious concern, particularly as it relates to air traffic control and other critical public safety applications. To its credit, LightSquared “takes the concerns raised by the GPS community about possible overload of GPS devices by LightSquared’s base stations very seriously, and [maintains] that it is appropriate for interested parties to devote resources to a solution as soon as possible.”²⁹ Accordingly, the Public Interest Organizations believe the

26 47 U.S.C. § 309(b) (emphasis added).

27 O&A ¶23 (“[W]e need not reach the issue of whether it should be classified as major or minor modification for purposes of establishing a pleading cycle, because even assuming for the sake of argument that the modification request in this proceeding should be classified as major, the pleading cycle established in the *Comment Public Notice* complies with the requirements of the Communications Act.”).

28 See U.S. GPS Industry Council Application for Review at 6-7; ACSM Application for Review at 6.

29 O&A ¶40 (citing *Ex Parte* letter from Sanjiv Ahuja, Chairman and CEO of LightSquared, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Jan. 21, 2011)).

Bureau struck the right balance by allowing network investment and construction to continue while also addressing proactively the potential impact of out of band emissions on adjacent GPS operations.³⁰

While this collaborative approach to finding a workable compromise on GPS interference concerns serves the public interest, the Public Interest Organizations also urge the Commission to ensure that the compelling public interest benefits of the wholesale LTE network promised by LightSquared are not unduly delayed by the desire of incumbents to forestall more intensive use of bands adjacent to their own, or to defend the use of cheap, wide-open receivers that undermine the anticipated spectrum efficiency from robust use of neighboring frequency bands. In the absence of receiver regulation, it is increasingly imperative that the Commission not allow spectrum incumbents to reduce their own costs by not designing around the rights and known potential uses of neighboring spectrum bands.

The GPS filers suggest that the Bureau's decision to grant a waiver in the instant proceeding is tantamount to imposing new service rules concerning the extent to which MSS licensees may deploy ATC base stations and end user devices in the band.³¹ However, neither the requested modification nor the conditional waiver granted is relevant to the GPS interference concerns described in the Applications for Review. The GPS filers are conflating the Bureau's conditional ATC waiver decision with the long-established technical rules and conditions related to protecting GPS operations from harmful interference due to OOBE. In reality, the waiver

30 See *id.* ¶41 (establishing industry working group process with requirement that the Commission ultimately approve the outcome of the process before LightSquared is authorized to commence commercial services).

31 See U.S. GPS Industry Council *et al.*, Application for Review at 6-8 (“[T]he *Waiver Order* will create the very desensitization to GPS receivers that those rules were intended to avoid.”); see also GAMA Application for Review at 5; ASRI Application for Review at 7-9; Deere Petition for Reconsideration at 13-15.

does not change in any way LightSquared's longstanding right to deploy tens of thousands of ATC base stations and millions of mobile consumer devices at exactly the same geographic locations and power levels as contemplated in its most recent business plan. GPS interests have been both on notice and actively engaged in commenting on and negotiating over the implications of ATC deployments on the MSS bands since at least 2002.

For example, the U.S. GPS Council, in September 2003 Reply to Comments on its own Petition for Reconsideration of the Commission's initial ATC Order, stated that under the ATC integrated service rules there would be "increased user density from potentially millions of MSS mobile terminals operating in ATC mode" which "will transmit back to potentially tens of thousands of ATC wireless base stations in the 1525-1559 MHz bands . . .," and together "significantly increase the noise floor in the bracketed GPS L1 band from ATC transmissions into the GPS L1 signal from *both sides*."³² This acknowledgment came at the end of a more than year-long process that resulted in an agreement between the U.S. GPS Council and LightSquared's predecessor companies. That process committed LightSquared, then as now, to OOB limits in the GPS bands from its base stations and user devices, and those limits were endorsed, according to the GPS Council's Petition for Reconsideration, by "the GPS Community" and by NTIA.³³ Moreover, the GPS filers failed to raise any concerns about unexpected or increased interference last year when the Commission sought comment on a proposed license transfer to Harbinger that was explicitly premised and conditioned on the

³² U.S. GPS Council, Reply to Comments, *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2GHz Band, the L-Band, and the 1.6/2.4 GHz Band*, IB Docket No. 01-185, at 2 (filed Sept. 4, 2003).

³³ U.S. GPS Council, Petition for Reconsideration, *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2GHz Band, the L-Band, and the 1.6/2.4 GHz Band*, IB Docket No. 01-185, at 2-3 (filed June 11, 2003) ("The proposed MSV/GPS Industry Council OOB limits elicited broad support from both the public and private sectors. The [NTIA] endorsed these OOB limits as 'attainable by the MSS ATC and agreeable with the GPS community.'").

aggressive deployment of tens of thousands of ATC/LTE base stations sufficient to cover 260 million potential customers by the end of 2015.³⁴

Now, some eight years after acknowledging the likely mass buildout of ATC on adjacent MSS bands, the GPS filers seemingly suppose that a large-scale deployment of ATC base stations and mobile devices on the same 1525-1559 MHz band is some sort of new development when, in fact, it was the policy purpose and logical result of the Commission's 2003 Order – a policy that the Bureau has not changed by granting the waiver for LightSquared's particular wholesale business model. Based on the existing ATC rules adopted by the Commission, the GPS filers could not have expected that the integrated nature of the service would place an inherently low ceiling on ATC deployments in the band. As the Bureau noted in the *O&A*:

Importantly, the Commission expressly rejected requiring that the satellite service constitute the predominant or primary use of an MSS/ATC system, or that a specific percentage of an MSS/ATC operator's network capacity be reserved exclusively for MSS. The Commission concluded such a restriction would limit spectrum efficiency.³⁵

The GPS filers fail to appreciate the degree to which the instant *O&A* has taken the legitimate concerns of the GPS community into account. The Bureau, in an abundance of caution, and with the voluntary cooperation of LightSquared, imposed conditions on the waiver that reduce the flexibility of LightSquared to deploy LTE base stations and to launch a mass commercial service in two important respects. First, the Bureau required LightSquared to “help organize and fully participate in” a working group process “to fully study the potential for overload interference to GPS devices and to identify any measures necessary to prevent harmful

34 *In the Matter of SkyTerra Communications, Inc. and Harbinger Capital Partners Funds*, 25 FCC Rcd 3059, 3085, ¶ 56 (2010) (“2010 Transfer of Control Order”).

35 *O&A* ¶ 16 (citing *ATC Report and Order*, 18 FCC Rcd at 2014-15, ¶ 99; *ATC Second Reconsideration Order*, 20 FCC Rcd at 4623-24, ¶ 19).

interference to GPS.”³⁶ As part of this process, the Bureau required LightSquared to file a work plan, to make regular progress reports, and “to submit a final report no later than June 15, 2011, that includes the working group’s analyses of the potential for overload interference to GPS devices from LightSquared’s terrestrial network of base stations, technical and operational steps to avoid such interference, and specific recommendations going forward to mitigate potential interference to GPS devices.”³⁷ Second, the Bureau prohibited LightSquared from initiating commercial operations until the Working Group process addressing the GPS interference concerns “is completed to the Commission’s satisfaction.”³⁸

The Public Interest Organizations believe the Bureau has struck the correct balance. By allowing investment in network construction and dual-mode device innovation to continue while mandating a collaborative industry approach to the GPS concerns, the Bureau properly balanced Lightsquared's need to meet the Commission's buildout obligations and sustain the commercial viability of the network with an expedited process to protect essential GPS services.

CONCLUSION

LightSquared’s application serves as an important step in the process of facilitating the deployment of a new, wholesale-only mobile broadband service, and therefore can deliver significant public interest benefits by increasing competition in a largely broken wireless market, consistent with this Commission’s goal of stimulating innovation, investment, and competition in the wireless industry. More intensive use of the L Band for valuable consumer and other services also promote the goals of greater spectrum access and efficiency recommended in the Commission’s National Broadband Plan. The potential public interest benefits of a nationwide

³⁶ *Id.* ¶ 41-42.

³⁷ *Id.* ¶ 43.

³⁸ *Id.* ¶ 41.

wholesale access LTE network are considerable, and the arguments raised in the Applications for Review and the Petition for Reconsideration are without merit. The Public Interest Organizations urge the Commission to deny the Applications for Review and Petition for Reconsideration while continuing to proactively push all interested parties to resolve equitably any legitimate GPS interference issues, particularly those that could endanger public health and safety.

Respectfully Submitted,

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